

WHAT IS CLAIMED IS:

- 5 1. An interface unit capable of being connected to a main unit of a key telephone system, the main unit connecting a telephone terminal to a telephone network, the interface unit being adapted to be communicated with the telephone terminal at one of plural transmission speeds, the interface unit comprising:
- 10 a first transmitter configured to transmit a type query signal to the telephone terminal at a first speed;
- a first receiver configured to receive a type signal from the telephone terminal at the first speed; and
- 15 a second transmitter configured to transmit a speed change request to the telephone terminal and change a transmission speed to a second speed if the received type signal indicating that the telephone terminal is capable of transmitting data at the second speed.
- 20 2. The interface unit according to claim 1, wherein said second speed is faster than the first speed.
- 25 3. The interface unit according to claim 1, wherein said plural transmission speeds includes at least two speeds.
4. The interface unit according to claim 1,

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wherein said second transmitter transmits the speed change request to the telephone terminal at the first speed.

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5. A key telephone system comprising a telephone terminal and a main unit which connects the telephone terminal to a telephone network, and includes a telephone interface unit connected to the telephone terminal, a network interface unit connected to a telephone network, and a connection line connecting the telephone interface unit and the network interface unit, wherein

said telephone interface unit comprising:

a first transmitter configured to transmit a type query signal to the telephone terminal at a first speed;

a first receiver configured to receive a type signal from the telephone terminal at the first speed; and

a second transmitter configured to transmit a speed change request to the telephone terminal and change a transmission speed to a second speed if the received type signal indicating that the telephone terminal is capable of transmitting data at the second speed, and

said telephone terminal comprising:

a first transmitter configured to transmit the type signal to the interface unit at the first

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speed in response to the type query signal; and

a first receiver configured to receive the speed change request transmitted from said second transmitter and to change a transmission speed to the second speed in response to the received speed change request.

6. The system according to claim 5, wherein said second speed is faster than the first speed.

7. The system according to claim 5, wherein said plural transmission speeds includes at least two speeds.

8. The interface unit according to claim 5, wherein said second transmitter transmits the speed change request to the telephone terminal at the first speed.

9. A transmission speed control method for a key telephone system comprising a telephone terminal and a main unit which connects the telephone terminal to a telephone network, the method comprising:

causing the interface unit to transmit a type query signal to the telephone terminal at a first speed;

causing the telephone terminal to transmit a type signal to the interface unit at the first speed in response to the type query signal;

causing the interface unit to receive the type signal from the telephone terminal at the first speed;

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causing the interface unit to transmit a speed change request to the telephone terminal and change a transmission speed to a second speed if the received type signal indicates that the telephone terminal is capable of transmitting data at the second speed; and

causing the telephone terminal to change a transmission speed to the second speed in response to the speed change request.

10 *SP* 10. An interface unit for a telephone system comprising a telephone terminal and a main unit which connects the telephone terminal to a telephone network and includes the interface unit capable of being connected to the telephone terminal, the telephone terminal being capable of operating at one of a first speed and a second speed which is faster than the first speed, the interface unit comprising:

15 a transmitter configured to transmit data to the telephone terminal at one of the first speed and the second speed;

20 a receiver configured to receive data from the telephone terminal at one of the first speed and the second speed;

25 a detector configured to detect whether or not the telephone terminal is capable of transmit and receive data at the second speed; and

a mode setting device configured to set an operation speed of said transmitter and said receiver

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to an optimum speed based on the detection result of said detector.

11. The interface unit according to claim 10, further comprising:

5 a mode change requesting device configured to cause the telephone terminal set an operation speed to the optimum speed based on the detection result of said detector.

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10 12. A main unit connecting a telephone terminal to a telephone network, comprising:

a transmitter configured to transmit data to the telephone terminal at one of the first speed and the second speed;

15 a receiver configured to receive data from the telephone terminal at one of the first speed and the second speed;

a detector configured to detect whether or not the telephone terminal is capable of transmit and receive data at the second speed; and

20 a mode setting device configured to set an operation speed of said transmitter and said receiver to an optimum speed based on the detection result of said detector.

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25 13. The main unit according to claim 12, further comprising:

a mode change requesting device configured to cause the telephone terminal set an operation speed to

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the optimum speed based on the detection result of said detector.

14. A telephone terminal used for a key telephone system comprising a main unit which connects the telephone terminal to a telephone network, the telephone terminal comprising:

a transmitter configured to transmit a type signal to the main unit at a first speed in response to a type query signal transmitted from the main unit at the first speed; and

a mode setting device configured to change a transmission speed to the second speed in response to a speed change request transmitted from the main unit.

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